

ABSTRACT OF THE DISCLOSURE

A liquid film forming method of dropping a liquid adjusted to be spread into a give amount on a substrate to be processed from a dropping nozzle or dropping nozzles of a dropping unit onto the substrate, and then moving the dropping unit and the substrate relatively while keeping the dropped liquid on the substrate, so as to form a liquid film on the substrate, wherein the relative movement of the dropping unit and the substrate is composed of straight movement along a file direction in which the dropping unit passes from one end side of the substrate through an upper space of the substrate to the other end side of the substrate, and movement along a rank direction outside the substrate, movement distance along the file direction is the sum of dropping length (L) over the substrate and distance of an acceleration/deceleration section, and movement speed (v) along the file direction over the substrate is defined dependently on the square root of the product of the dropping length (L) and the absolute value of acceleration/deceleration (a) within the acceleration/deceleration section.